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Intelligence Memorandum

International Finance Series

The World Gold Market in 1972 and Prospects for 1973

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INTELLIGENCE MEMORANDUM

THE WORLD GOLD MARKET IN 1972 AND PROSPECTS FOR 1973

INTRODUCTION

1. This memorandum, one of a series begun shortly after the two-tier gold market was established in March 1968, reviews and updates developments in both the free and official gold markets through 1972. Attention is focused on the decline of South African production and sales, Soviet re-entry into the market, and the rise in the free market gold price. The outlook for gold in 1973 is also considered.

HIGHLIGHTS

- 2. The volume of gold sales by the non-Communist countries in 1972 declined to 1,070 metric tons, about a one-third drop from 1971. South African production fell from 980 to 900 tons while the volume of South African sales declined to somewhat less than 700 tons. The decline in South African sales is explained largely by the improvement in South Africa's balance of payments and the increased free market gold price.
- 3. The Soviet Union, probably to obtain foreign exchange for its large grain purchases, sold large quantities of gold for the first time since 1965. Soviet sales in 1972 were about 150 tons, valued at about US \$250 million to \$300 million. These sales, which were less than current production, were not sufficiently large to compensate for the South African shortfall.

Note: This memorandum was prepared by the Office of Economic Research.

- 4. The free market gold price reached a record \$70 per troy ounce in August 1972 before stabilizing at about \$64 an ounce. The major factor in the price rise was the decline in supply. Speculative demand, although helping to produce sharp periodic price fluctuations, probably had only a small impact on the gold price for the year as a whole.
- 5. The US official gold window has remained closed since 15 August 1971, and non-IMF official gold transactions in 1972 were consequently reduced to a trickle. The European Community (EC) has agreed to dispense temporarily with gold settlements in official intra-EC monetary transactions.
- 6. Conditions in the world gold market in 1973 are likely to differ little from 1972. Pretoria will probably increase gold sales slightly by about \$100 million as the Republic's trade balance deteriorates. Although Moscow often acts unexpectedly, Soviet sales will probably continue at a high level between 150 and 200 tons because of continuing foreign exchange requirements. Other suppliers are expected to offer roughly the same volume as in 1972. With basic consumption continuing to grow moderately, the price in the absence of speculation in 1973 should average about \$58 an ounce. Obviously, if Soviet sales vary significantly from the amount projected, the price will change accordingly. Similarly, speculation, whether motivated by rumors of Soviet actions or discordant notes in the international currency market, could produce wide fluctuations in the price. Little activity is expected in the official market.

DISCUSSION

Gold Supply

Newly Mined Gold

7. With sales from official holdings largely halted, newly mined gold is the only important source of supply. World gold production in 1972 totaled 1,450 tons, down slightly from 1,480 tons in 1971 (see Table 1). South African production, more than 62% of total output, decreased 8%, but this was largely offset by a 23% increase in Soviet extraction. The South African drop largely reflects the decision to mine lower grade ores made profitable by rising free market prices. Although a portion of the important West Driefontein mine was closed for about three months because

^{1.} In South Africa the richness of the ore extracted varies inversely with the price. Because of the mining technology employed, working lower grade ores, which become profitable to extract when the price rises, increases the value of in-ground reserves and the mine's life.

Table 1
World Gold Production

	a.					Me	tric Tons	
			1972					
٠	1970	1971	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr ^a	Totala	
Total South Africa Other Free World Soviet	1,475 1,000 270 205	1,480 980 280 220	350 220 70 ^a 60 ^a	365 225 70 ^a 70 ^a	362 225 70 ^a 70 ^a	370 230 70 70	1,450 ^a 900 280 270	

a. CIA estimate.

of a fire, this accounts for less than 10% of the drop in South African production. The Soviet rise is attributable largely to the completion of a major new processing plant. There were no significant new gold discoveries during the year.

8. Pretoria and Moscow for the most part sell gold only to meet foreign exchange requirements. Most other countries market their entire output of newly mined gold. The condition of South Africa's balance of payments essentially determines what proportion of the Republic's newly mined gold and gold reserves will be sold in the free market, although the marketing policies of the Swiss "big three" banks — Union Bank of Switzerland, Swiss Banking Corporation, and Swiss Credit Bank — which market most of South Africa's output, also play a role. Soviet hard currency requirements affect the level of Soviet sales.

South African Sales

9. An improved balance of payments and a record gold price enabled South Africa to withhold almost one-fourth of its newly mined gold in 1972 (see Table 2). An exceptional harvest boosted agricultural exports while high inventories continued to restrict the demand for imports. Thus, Pretoria reduced its trade deficit, excluding gold transactions, to \$1.1 billion – from \$1.9 billion in 1971 and \$1.6 billion in 1970 (see Table 3). The deficit on services was also reduced somewhat while the level of private net long-term capital inflows remained high. The payments deficit to be financed by gold sales, net government borrowing, monetary movements, and changes in reserves was consequently reduced to \$1.1 billion. This

Metric	Tons

•	1970	1971	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr ^a	Totala
Total	1,771	1,602	347	326	303	275	1,251
South Africa	1,398	1,203	221	170	143	155	689
Other Free Worldb	370	380	95a	95a	95a	95	380
Soviet ^c	3	19	31	61	65	25	182

a. CIA estimate.

b. Including sales of scrap.

c. Including other Communist countries' sales in 1972.

deficit was more than covered by the Republic's gold sales, which realized \$1.2 billion, or 20% less than in 1971.

- 10. The decline in the volume of South African gold sales was more pronounced than the decline in the value.² In 1972, Pretoria probably sold somewhat less than 700 tons of newly mined gold at an average price of about \$55 per troy ounce. In 1971, South Africa sold little more than 1,200 tons, or 75% more, but at an average price of only \$40. The volume of sales, already down about 15% from 1970 to 1971, fell another 50% by the third quarter of 1972. The newly mined gold withheld from the market was added to South African reserves, which at year's end totaled about 555 tons valued at the official price of \$38 per ounce at \$678 million.
- 11. With the free market price well above the official price, Pretoria had no incentive to sell to monetary authorities in 1972. Free market sales consequently increased to 99% of total sales, compared with 87% in 1971 and 57% in 1970. The only official transaction was a \$4 million sale to Mozambique in January. No sales have been made to the International Monetary Fund (IMF) since July 1971.
- 12. Most of South Africa's sales were handled by the Swiss bank consortium. Most of this gold was shipped by sea directly from South Africa to the United Kingdom and then released to the Swiss banks to be sold

^{2.} For details on weekly gold sales, see Table A-1 in the Appendix.

Table 3

South African Balance of Payments

-						Millio	n US \$
					1972	•	
	1070	1071	1st	2nd	3rd	4th	
•	1970	1971	Qtr	Qtr	Qtr ^a	Qtr^{a}	Totala
Trade balance	-1,600	-1,894	-348	-196	-199	-367	-1,110
Exports	2,017	2,143	578	723	685	645	2,631
Imports	-3,617	-4,037	-926	-919	-884	-1,012	-3,741
Current account							
balance	-2,330	-2,657	-499	-338	-351	-525	-1,713
Private long-term and short-term							
capital flows	612	756	186	262	52	100	600
To be financed	-1,718	-1,901	-313	-76	-299	-425	-1,113
Public long-term							
and short-term							
capital flows	146	276	8	-80	30	100	58
Foreign exchange movements and valuation adjust-							
ments	-48	78	· -42	-138	-31	33	-178
Gold sales ^b	1,620	1,547	347	294	300	292	1,233

a. CIA estimate or preliminary.

on world markets. London banks and European bullion dealers most likely accounted for the remainder of South Africa's sales.

Soviet and Other Communist Sales

13. During the year the Soviet Union began selling large quantities of gold for the first time since 1965, probably in anticipation of the hard currency needs arising from the subsequent large grain purchases from the West. These sales were not sufficiently large, however, to compensate for

b. Estimated from balance of payments.

the drop-off in South African supply. The USSR first entered the market in March 1972 in a manner calculated to avoid depressing the price; sales averaged only about one ton per day through May. Sales resumed in late July at roughly the same rate. The total sales volume through the end of the third quarter was about 140 tons. Sales dropped considerably in the fourth quarter, and total 1972 volume is estimated at 150 tons, valued at about \$250 million to \$300 million. US imports of Soviet gold through Switzerland or the United Kingdom totaled about 15 tons.

- 14. Soviet sales in the free market currently are handled by the same Swiss consortium that deals in South African gold, a change from past years, when all Soviet gold was sold by London dealers. The gold is shipped to Zurich by air and is stored in either consortium vaults or at a Soviet-owned bank. Gold sales generally are made from Zurich inventories, but the consortium occasionally sells against delivery from Moscow-based stocks.
- 15. Free market sales by other Communist nations totaled only about 30 tons during 1972 mostly from East Germany.

Other Non-Communist Sales

16. Other sales have remained relatively constant at about 380 tons annually since 1970. Sales of newly mined gold from Canada, United States, West Germany, Australia, Japan, the Phillipines, and Rhodesia declined slightly, to about 280 tons in 1972. Sales of gold from scrap and other secondary recovery increased slightly and totaled about 100 tons in 1972.

Gold Consumption

- 17. Basic gold consumption in non-Communist countries has been increasing about 3%-4% a year as a result of rising income, population growth, and technological changes, inducing greater use of gold in industry.³ In 1972, however, the sharp drop in supply led to a reduction in commercial purchases.⁴ Basic consumption is estimated to have totaled about 1,200 tons in 1972, a decline of about 16% from 1971.
- 18. Most of the decline in consumption was accounted for by the drop in the demand for gold for hoarding and for jewelry. Traditional hoarders from the Far East and the Middle East purchased gold actively

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^{3.} We define basic consumption as effective non-monetary demand for commercial (artistic, dental, and industrial) purposes and accumulation for hoarding as distinct from demand for speculative

^{4.} For details on weekly basic consumption, see Table A-2 in the Appendix.

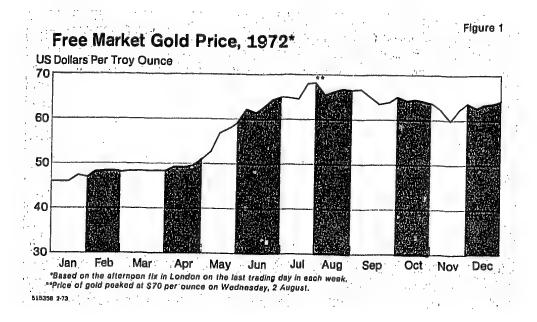
in the early months of the year but dropped out of the market when the gold price increased in June. There were even indications of dishoarding from these areas as the summer wore on and prices rose. Because of the high gold price, jewelry producers — who account for about 70% of total basic consumption — also cut back new gold purchases somewhat and, at year's end, were probably reducing their inventories. New industrial applications for gold probably more than offset reductions in demand resulting from the high price and more efficient industrial usage. Dental demand probably increased slightly in 1972.

- 19. There were periodic outbursts of net speculative buying in 1972. These were motivated by factors such as the spring currency crisis and the ensuing capital controls which diverted some speculative funds from the currency market into the free gold market, rumors of a US-Soviet agreement to raise the official gold price, and intensified fighting in Indochina. For the year as a whole, net speculative purchases probably totaled around 62 tons, or about 5% of total gold sales.
- 20. The overall net speculative buying in 1972 contrasts with the net speculative sales of the previous two years. The speculative overhang which developed in the period between the devaluation of sterling in November 1967 and the creation of the two-tier gold market in 1968 probably was essentially sold off by mid-1971. Speculative activity increased during the summer and fall of 1971, but, following the Smithsonian agreement, speculators apparently began to accept that the official gold price would not be substantially raised and moved out of gold into other assets.

The Free Market

- 21. The free market gold price began the year at \$44 per troy ounce, edged upward through May, and rose to about \$67 at the beginning of June before dropping off slightly (see Figure 1). It remained at about \$65 until in a sudden surge it reached a record \$70 on 2 August, nearly double the official price. After reaching this peak, the price eased somewhat and stabilized during the last three months of the year at around \$63-\$65 per troy ounce.
- 22. The increase in the free market gold price in 1972 is largely explained by the decline in gold supply. Gold sales totaled only 1,251 tons in 1972, or almost 22% less than in 1971, while the average free market price, about \$585 per troy ounce, was up 41%. Considering that rising incomes were pushing up gold demand, it is not surprising that prices rose more than supply fell. Speculative demand clearly was also a factor pushing

^{5.} Unweighted end-of-week average.



up the price, but an analysis of weekly variations in the price and supply shows that most of the price variation is explained by variations in supply.6

- 23. Zurich's position as the world's most important gold market continued to solidify in 1972, helped by the periodic closing of the London market as a result of political and economic problems in the United Kingdom. The consortium's bold trading philosophy and Zurich's central location in the German-Swiss-Italian "gold corridor" have also been prime factors. In 1972, about 75% of the gold traded on world markets was sold in Zurich, with most of the remainder handled in London.
- 24. The world's first gold futures market opened in Winnipeg, Canada, on 15 November 1972. Gold is sold there for delivery to specific Canadian cities in January, April, July, and October up to one and one-half years later. Most of the trading is done by US industrial firms, banks, and security houses licensed to deal in gold. Some observers expect that futures trading will remove some short-term speculative transactions from the more well-established markets. The relatively poor communications and the time difference between Winnepeg and other gold centers, however, and the high costs associated with the initial trading will hold down the new market's impact.

The Official Market

25. The US official gold window has remained closed since 15 August 1971 despite some foreign pressure for its reopening. In February the dollar

^{6.} See the Appendix.

was officially devalued and the gold price was increased to \$38 per troy ounce. This increased the value of US gold reserves by \$828 million. The only major outflow during the year was a \$544 million sale to the IMF in February to liquidate an outstanding obligation. Other US official sales totaled only \$3 million.⁷

Gold's attraction as an official receive has grown as the free 26. market price has risen. National officials have consequently sought to keep their gold reserves intact in times of payments difficulties. The United Kingdom, for example, borrowed against its non-gold reserves during the summer run on sterling rather than risk a portion of its gold reserves to support the pound. Italy threatened to drop out of the EC currency arrangement which, among other things, called for a member state to repay debts arising from central bank intervention in the same proportion as its reserves of gold, Special Drawing Rights, and foreign currencies. Rome was persuaded to keep the lira in the EC band by receiving permission to repay intervention obligations in dollars - thus preserving its gold reserves. The EC has tentatively agreed to permit repayment in reserves other than gold by all members in 1973. In one of the few gold settlements among European central banks in 1972, the Netherlands repaid in gold part of a debt to Belgium incurred when intervention was required to maintain the narrow Benelux currency limits.

Prospects

- 27. World gold production is not likely to change significantly in 1973 regardless of how the free market price behaves. The economics of gold production dictate that a significant increase in output must be preceded by about three to four years by additional capital investment. No major new mining investments have occurred in recent years. Although some older mines scheduled for closure will remain open if the gold price remains high, this will be offset by the practice of mining lower grade ore.
- 28. World gold supply will probably increase slightly in 1973 because of increased South African and Soviet sales. South Africa's trade account is expected to deteriorate somewhat. An expected decline in agricultural production will retard the growth of non-gold exports, while import growth should resume to meet the demand associated with increased economic activity. The deficit on services and transfers should also grow, while net private capital inflows should fall off somewhat because of increased UK restrictions on overseas investment. Overall, Pretoria is expected to have to finance a payments deficit of about \$1.4 billion through gold sales, net

^{7.} Although the official window is closed, the United States is still willing to sell gold to new IMF members needing gold to meet subscription requirements.

public capital inflows, and reserve changes. The value of South African gold sales is consequently expected to increase about 10%-15% over 1972, with sales likely to be larger in the second half of the year than in the first half.

- 29. The level of Soviet gold sales is determined by the urgency of foreign exchange requirements and the availability of alternate means of finance. The Soviet hard currency trade deficit is expected to increase greatly in 1973, to about \$1.8 billion, as a result of unusually large grain purchases from the West.⁸ Moscow, however, has excellent access to credits and would probably choose to borrow to avoid reducing its gold reserves. Consequently, we expect Soviet gold sales to be less than 300 tons (the expected level of production) and more probably between 150 and 200 tons.
- 30. The free market gold price in the absence of speculation should average about \$58 an ounce in 1973 the same as the 1972 average given the above supply projections and the upward trend in demand. The price probably will show a downward trend from the current \$64 during the year, since South Africa's foreign exchange needs and gold sales will peak toward year's end. Speculation, however, could cause short-run price fluctuations. Possible sources of future speculation include changes in Soviet gold marketing plans and uncertainty in the international currency market.
- 31. The official tier of the gold market is expected to remain quiet during 1973. The role of gold in the new monetary system will be an important issue in international monetary reform negotiations, however. France and Italy, which hold a significant share of their reserves in gold, have raised the possibility of a three-tier gold market; in addition to the official US price and the free market price, there would be an intermediate price for the settlement of EC central bank claims. Nevertheless, if and when overall monetary reform is achieved, it is almost certain that gold will play a less important role in the monetary system.

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APPENDIX

SPECULATIVE DEMAND AND ITS FREE MARKET IMPACT

In this Appendix, estimates of gold supply and basic consumption are used to calculate the level of net speculative demand and its impact on the free market in the 1970-72 period.* The Appendix makes use of a simple market clearing equation in which the level of net speculative demand equals total gold supply less the level of basic consumption.

Gold supply is estimated from reported weekly South African and Soviet sales (see Table A-1) and quarterly sales figures for other suppliers — both sales of scrap and sales by other non-Communist countries. A 12-week moving average is applied to the South African and Communist sales data to reflect the adjustments made by the Swiss banks that act as middlemen between these producers, whose sales fluctuate widely from week to week, and the ultimate gold purchasers, who buy at a more stable rate. A 12-week moving average was chosen because it explained short-term price movements better than did moving averages for other reasonable time periods, although the results are not substantially affected by the period of the moving average. It is assumed that sales of scrap and sales by other non-Communist countries are evenly distributed over the 145-week period under examination.

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basic consumption in 1970 was

The volume of demand was estimated to increase about 3%-4% annually if the real gold price remained constant (see Table A-2).

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The price elasticity of demand was estimated be approximately unity or somewhat more.** On the basis of this elasticity, basic consumption is calculated to total about 1,434 tons in 1971 at an average free market price of \$41 per troy ounce and about 1,200 tons in 1972 at an average free market price of \$58, assuming a 5% annual general increase in world prices and adjusting for the currency realignment. The unitary elasticity of demand estimate was developed from earlier studies for a period of relative price stability. The level of basic consumption is consequently also calculated for two alternate elasticity estimates, an elasticity of 0.7 and an elasticity of 1.3.

^{*} Net speculative demand is defined to include long-run changes in inventories, including the inventories of the Swiss consortium.

^{**} The price elasticity of demand is the numerical relationship (quotient) between the percentage change in the volume of demand and the percentage change in price.

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Table A-1
Free Market Gold Supply 1970-1972

					Twelve-Week					Tuelva Week
	Week Ending		South African Sales	Soviet Sales	Moving Average of Total World Sales	Week Ending		South African Sales	Soviet Sales	Twelve-Week Moving Average of Total World Sales
May	70	8	1000	0	209	l	20	524	ŋ	846
Мау	70	15	500	ő	918		27	660	0	846
		22	650	Ô	901	Sep	3	602	0	850
		29	500	ñ	909		10	602	0	857
Jun		5	800	ő	909		17	651	0	861
Just		12	651	ñ	910		24	576	0	870
		19	750	ő	909	Oct	1	652	0	867
		26	501	ő	901		8	627	0	885
Ju1		3	801	ñ	909		15	702	0	891
0 41		10	600	0	913		22	631	G	838
		17	600	Ö	913		29	734	0	915
		24	701	ō	897	Nov	5	583	0	935
٠		31	901	0	910		12	747	0	9 % G
Aug		7.	600	0	898	•	19	731	n	952
		14	701	0	698	i .	26	682	0	933
		21	500	0	864	Dec	3	803	0	922
		28	600	ŋ	848		10	901	0	912
Sep		4	800	0	835	l l	17	826	0	909
•		11	601	0	835	1	24	596	.0	910
		18	501	ŋ	B16		31	401	Ö	894
		25	1100	0	833	Jan 7		578	0	884
Oct		2	400	0	808	ı	14	501	0	873
		9	451	0	804	1	21	702	0	850 833
•		16	702	0,	790	9-1	28	601	0 0	835
		23	675	0	765	Feb	4	554 504	0	647
		30	802	0	763		11 18	604 554	Ö	877
Nov		6	401	0	763		25	527	0	881
		13	451	0	768	Mar	3	528	234	904
	٠.	20	432	0	768	Mer	ĭo	551	234	307
		26	512	0	751		17	501	234	922
Dec		4	549	21 21	730 728		24	526	234	933
		11	479 444	21	721		30	391	234	944
		18 24	377	21	740	Apr	7	548	234	955
		31	227	21	754		i 9	501	234	947
Jan	71	8	453	0	770		21	551	234	915
Jan	/ 1	15	651	ő	784	1	28	451	234	870
		22	721	Ô	793	May	5	501	234	844
		29	621	Ö	801		12	452	234	809
Feb		5	622	ő	812		19	434	0	784
. 05		12	627	Ô	831	ł	26	378	0	743
		19	676	Ō	863	Jun	2	251	0	710
		26	675	0	873		9	419	0	673
Mar		5	601	0	861	1	16	336	0	655
		12	601	ŋ	855		23	327	0	642
		19	626	0	860	I	30	296	0	636
		26	626	0	856	Jul	7	3 3.3	0	653
Apr		2	577	0	854		14	341	0	666
		8	501	0	856		21	276	190	691
		16	652	0	835	1.	28	397	190	699 719
		23	676	ņ	842	Aug	4	422	190 190	742
		30	577	0	838		11 18	439 348	190	758
May	,	7	601	0	835	I .	25	362	190	776
		14	705	0	834	San	1	322	190	782
		21	426	0	831	Sep	8	387	190	781
¥		28	677	0	839		15	413	190	768
Jun		4	552 500	0	841 832		22	302	190	746
		11	596 608	0	837	1	29	359	190	728
•		18 25	608	0	837	Oct	6	383	32	720
77		25	551 590	0	828		13	420	32	7:10
Ju1	٠	9	677	0	845	I .	. 20	396	32	704
		16	576	0	832		27	314	3.2	690
		23	628	0	841	Nov	3	388	32	680
		30	577	Ô	842		10	404	32	673
Aug	,	6	625	ő	841		17	404	32	660
8	,	.13	626	ů	849		24	403	32	645

Table A-2
Free Market Basic Gold Consumption 1970-1972

Matrie Toru At The Free Market At The Free Market Gold Price Assuming Gold Price Assuming Ata ALA An Electicity of An Elauticity of Constant Constant Week Week Real Real 1.3 Ending Gold Price 1.3 0,7 0.7 Ending Gold Price May 70 8 28.50 28.23 28.08 27.94 20 29.89 27.25 26.20 25,10 15 28.22 27 29.91 28.29 27.63 26.97 28.60 28.39 28.31 22 Sop 3 29,93 28.06 27.29 26.54 28.62 28.48 28.42 28.36 10 29 28.88 29,95 28.12 27.37 26,64 28.63 28.70 28.82 28.65 Jun 29.19 29,97 27,97 27.15 26.36 20,94 29.06 12 28.67 28.74 20.77 28.00 24 30.00 27.80 26.91 26,05 Oct 27.88 27.02 19 28.69 28.94 29.04 29.15 1 30,02 26.18 ē 27.90 29.10 27.03 26 20.71 28.92 29.01 30.04 26.19 15 27.01 26.16 Ju1 3 28.73 29.02 29.14 29.26 30.06 10 28.75 22 26.27 29.05 29.19 29.32 30,08 27.96 27.10 29 30.10 28.06 27.23 26.43 17 28.77 29.12 29.27 29.43 24 Nov 28.11 27.29 26.49 20.79 29.31 29.47 30.12 29.16 31 29.37 29.54 30.14 27,97 27.09 26.24 28.81 29.20 29.24 29.42 29.60 30.16 27.03 26.88 25.97 Aug 28.03 14 29.51 29.71 30.18 27,73 26.74 25.79 20.05 29.31 21 29.26 29.42 29.59 Dec 30,20 27.59 26.54 25.53 28.87 28 10 30.22 27.67 26.65 25,66 28.89 29.07 29.15 29.23 26,45 28.91 20.86 20.84 26.81 30.24 28.14 27.20 Sep 30.26 29.38 29.02 28.65 28.92 20.85 28.82 28.79 29.03 31 30.20 29.26 28.84 29,42 18 28.94 20,99 29.01 25 20.96 29.03 29.06 29.09 Jan 72 30.30 28.30 27.49 26.69 28.98 28.97 28.96 28.96 30.32 28,31 27.49 26,69 0ct 29.00 28.68 28.54 20.40 21 30.34 28.36 27.55 26.76 16 29.02 20.41 20.15 27.89 23 30.36 27.78 26.75 25.75 23 29.04 27.95 27.50 27.05 Feb 30.38 27.97 26.99 26,65 11 30 29.06 28.62 20.43 28.24 30.40 27.49 26.33 25.22 18 Nov 6 29.00 20.74 28.59 28.45 30.42 27.47 26.29 25.17 27.95 25 27.49 25.17 13 29.10 20.48 28.21 30.44 26.30 27,67 Mar 3 30,46 26.56 25.49 20 29.12 20.53 28.29 28.04 16 17 24 27.58 30.49 26.42 25.31 26 29.14 28.59 20.35 28.12 25.38 30.50 27.63 26.48 4 Dec 29.16 20.66 20.44 20.23 25 45 28.77 27.68 11 29.18 30.52 26.54 20.89 20.65 30 25. 7 28.47 30.55 27.70 26.56 18 29.20 28.26 28.69 29.22 25.54 30.57 27,75 26.62 20.69 Apr 20.85 28.53 31 19 27,39 24.92 29.24 28.61 30.53 26.13 20.90 20.76 29.26 21 Jan 71 8 28.71 30.51 27.43 26.17 24.97 28.87 28.54 28 24.85 15 29,20 28.59 28.30 20.01 30.63 27.37 26.08 29.30 20.71 28.47 28.22 May 30.65 26.86 25.38 23.99 29 29.32 20.69 28,43 28.17 12 30.67 26.23 24.53 22.95 Feb 29.34 28.54 28.21 27.88 19 30.69 24.92 22.79 20.04 12 2 36 26 24.68 22.47 20.46 20.35 27.94 27.52 30.71 30.73 29.38 28.46 28,07 27.69 Jun 2 24.29 21.96 17.85 29.40 20.46 28,06 27.68 9 30.75 23.47 20.33 18.62 26 29.42 20.52 27.78 16 30.77 23.77 21.28 19.05 Mar 28,15 12 29.44 20.41 27.98 27.55 23 30,79 23.38 20.77 18.46 30 7 19 29.46 20.49 28.09 27.70 30.81 23,01 20.31 17.92 Jul 17,72 26 29.47 20.57 28.19 27.82 30,83 22.00 20.14 14 Apr 29.49 28.61 28.24 27.87 30.85 22.99 20,26 17.86 21 28 17,90 Я 29.51 28.50 28.21 27.03 30,88 23.02 20.30 16 29.53 20.65 28,28 27.91 30,90 22,29 19.38 16,84 4 16,78 23 29.55 28.64 28.25 27.88 Aug 30.92 22.25 19.32 11 30 29.57 28.35 27.93 27.33 30.74 22.94 20.18 17.75 22.75 30.96 18 19.94 17.47 May 29,59 28.35 27.83 27.32 25 1 14 30.70 19.81 17.33 29.61 27.69 26.91 26.15 22,66 22.75 31.00 19.93 21 27.84 Sep 17.45 29.63 27,10 26.38 8 31.02 28 29.65 27.94 22.72 19.89 17.40 27.23 26.55 27.44 31.04 23.14 20.41 17.99 Jun 29'. 67 28.09 26.80 22 31.06 20.95 11 28.18 27.74 23.58 18,62 27.69 28.63 18 29.71 29 31.08 18.54 28.49 27.48 20.89 27.98 23,53 25 29.73 27.40 Oct 6 28,45 27.92 31.11 23.24 20.51 18,10 Jul 29.75 20.35 27.77 27.21 31.14 23,48 20.80 18.43 20 29.77 28,46 27.91 27.38 31.17 23.44 20.75 18.36 16 29.79 20,25 27,62 26.99 31.20 23,58 20.92 18.55 23 29.81 27,87 27.07 26.30 Nov 23.74 21.11 18.76 31.23 30 25.73 10 31,26 29.03 27.55 26.62 24.13 21.60 19.33 20.40 Aug 29.85 27.51 26.56 25.65 31.29 24.86

19.46

26.34

13

29.87

The level of net speculative demand is calculated using the market clearing equation and the estimates of gold supply and basic consumption. It appears on the basis of this calculation that there was substantial net speculative sales in 1970 and the first half of 1971 and three bursts of speculative buying in late 1971 and 1972 (see Figure 2). The pattern of speculative activity is similar for all three estimates of the price elasticity of demand, particularly during 1970, when the free market price was held down by sales from the speculative everhang.

It is difficult to determine which elasticity estimate provides the best picture of net speculative activity in 1971-72, although the results tend to support the previous estimate of 1.0 or somewhat more. If the price elasticity of demand were as low as 0.7, the calculations show sales from the speculative overhang continuing until November 1971 and speculators continuing to sell on a net basis in 1972. This is not consistent with our qualitative judgment or that of most market observers about speculative behavior in 1971 and 1972.

The basic procedure described above is also used to calculate the price that would have prevailed in the gold market in the absence of speculation. This calculation makes use of an equation of which the price in the absence of speculation equals the value of basic consumption (assuming a unitary price elasticity of demand) divided by gold supply.

The calculated price using this equation and the actual free market price are shown in Figure 3. The interpretation of the results is analogous to the interpretation given above. In periods where the calculated price is above the actual free market price, there were net speculative sales; in periods where the actual price is above the calculated price, there were net speculative purchases.

